UNCLASSIFIED

AD NUMBER AD875884 LIMITATION CHANGES TO: Approved for public release; distribution is unlimited. FROM: Distribution authorized to U.S. Gov't. agencies and their contractors; Critical Technology; 12 MAY 1970. Other requests shall be referred to Assistant Chief of Staff Development, Attn: FOR-OT-UT, Washington, DC 20310. This document contains export-controlled technical data. **AUTHORITY** AGO D/A ltr, 29 Apr 1980

THIS REPORT HAS BEEN DELIMITED

AND CLEARED FOR PUBLIC MELANAGE

UNDER DOD DIRECTIVE 5200.20 AND

NO RESTRICTIONS ARE IMPOSSO APPON

178 USE AND DIOCLOSURE.

DISTRIBUTION STATEMENT A

APPROVED FOR PUBLIC RELEASE,
DISTRIBUTION UNLIMITED.



DEPARTMENT OF THE ARMY OFFICE OF THE ADJUTANT GENERAL WASHINGTON, D.C. 20310

IN REPLY REFER TO

(28 Sep 70) AGDA (M)

FOR OT UT 702091 6 October 1970

SUBJECT: Operational Report - Lessons Learned, Headquarters, 169th

Engineer Battalion, Period Ending 30 April 1970

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4b, AR 525-15. Information of actions initiated as a result of subject report should be forwarded to ACSFOR OT UT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

1 Incl as

KENNETH G. WICKHAM

Major General, USA The Adjutant General

DIS RIBUTION:

Commanding Generals

US Continental Army Command

LS Army Combat Developments Command

Commandants

US Army War College

US Army Command and General Staff College

US Army Armor School

US Army Engineer School

US Army Field Artillery School

US Army Infantry School
US Army Ordnance School EMENT #2 UNCLASSIFIED

US Army Transportation School

This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be

made on becausific depresent approval of _ distribution no foreign without approval of assistant chief of staff for force development (army) attn: for ot ut, washington, D.C. 20310

Protective marking cancelled when separated from inclosure.



DISTRIBUTION (Contid)

Copies furnished:
Office, Chief of Staff, US Army
Deputy Chiefs of Staff Chief of Research and Development Assistant Chiefs of Staff Chief of Engineers Commandant of the Marine Corps Defense Documentation Center USAF Project RAND Commanding Officers

US Army Construction Engineering Research Laboratory
US Army Limited War Laboratory

US Army Logistics, Doctrine Systems & Readiness Agency
US Army Mobility Equipment Research & Development Center

ACCES TO	
ดราเ	HIPS, WORKING
noc	FREE . TOTAL. [5]
UI. AHROUNG:	n O
PASTIFICA !	JH ,
. 1	
DISTRIBUT	THE THIRDHIAYANNO
vist.	AVAIL, and/or SPECIAL
10	

DEPARTMENT OF THE ARMY HEADQUARTERS, 169TH ENGINEER BATTALION APO 96491

EGBE-OP

12 May 1970

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

THRU: Commanding Officer, 159th Engineer Group, ATTN: EGB-OP, APO 96491 Commanding Officer, 20th Engineer Brigade, ATTN: AVBI-COS, APO 96491 Commanding General, US Army Vietnam; ATTN: AVHGC-DST, APO 96375 Commanding General, US Army Pacific, ATTN: CPOP-OP, APO 96588

TO: Assistant Chief of Staff for Force Development Department of the Army (ACSFOR-DA) Washington, D. C. 20301

Section 1. Operations: Significant Activities

1. COMMAND

- a. ORGANIZATION: This report covers activities of the 169th Engineer Battalion from 31 January 1970 to 30 April 1970. The Battalion was commanded by LTC Nick J. Andre from 31 January 1970 to 30 April 1970.
- b. <u>Mission</u>: The mission of the 169th Engineer Battalion in the theater of operations is: to construct and rehabilitate roads and airfields, pipeline systems, structures, and utilities; to provide combat and operational support; and to assist in emergency recovery operations as directed by the 159th Engineer Group. In addition to the TOE mission as stated above, the Commanding Officer of the 169th Engineer Battalion is designated as subsector commander and has the responsibility for the security of a 2700 meter portion of the Long Pinh Post perimeter.
- c. Area of Responsibility: The 169th Engineer Battalion's area of responsibility includes the provinces of Binh Tuy and Long Khanh. Additional responsibilities include missions in the Long Binh/Bien Hoa complex.
- d. <u>Assignment</u>: The 169th Engineer Battalion has been assigned to the 159th Engineer Group since 30 May 1966. The Battalion headquarters is located at Long Binh, RVN.

FOR OT'UT 702091

FOR OFFICIAL USE ONLY

1

EGBE-OP 12 May 1970
SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

e. Movements, Attachments and Detachments: During the quarter the 169th Engineer Battalinn had nine attached units. They are the 544th Engineer Company (CS) (6 Officers and 165 EM authorized), 43rd Engineer Company (DT) (4 Officers and 109 EM authorized); 22nd Engineer Detachment (WD) (2EM); 38th Engineer Detachment (WD) (2EM); 156th Engineer Detachment (WD) (2EM); 551st Engineer Detachment (WD) (2EM), 917th Engineer Detachment (WD) (2EM), EM platoon, 517th Light Equipment Company (1 Officer and 25 EM) and EM platoon, 92nd Engineer Battalion (1 Officer and 34 EM). On 17 March 1970, the 22nd Engineer Detachment (WD), 38th Engineer Detachment (VD), 156th Engineer Detachment (WD), 551st Engineer Detachment (VD), and 917th Engineer Detachment (WD) were attached to the 92nd Engineer Battalion (Construction).

Headquarters, A Company and the 43rd Engineer Company (DT) continue to be located at Long Binh Post in the 169th Engineer Battalion cantonment area. B Company continues to be located at their base camp near the village of Phuong Lam, on QL-20. C Company remained at their base camp on QL-20 near the Village of Xn Binh Hoa. D Company remains at their base camp on QL-20 at the La Nga River. The 544th Engineer Company (CS) remains at their industrial site and base camp located on QL-20 at Nui Soo Lu. The 92nd EM platoon is attached to D Company, and the 517th EM platoon is attached to B Company.

f. Visitors and Awards:

(1) During this reporting period the work sites and base camps of the 169th Engineer Battalion were visited by ING Mildren (Commanding General USARV), MG Dillard (Commanding General, USAECV (P)), BG Yates (NAC-DC LOC), BG Tarbox (Commanding General, USAECAV), BG Norris (Commanding General, 18th Engr. BDe.), BG Schrader (Commanding General, 18th Engr. Bde.), Col E. T. O'Donnell (CO, 20th Engr. Bde.), Col E. J. Fuller (DFTY CO, 20th Engineer Bde.), Col Sterling (CO, 34th Engineer GP), and Col Denz (CO, 79th Engineer GP).

(2) During this reporting period, the battalion has awarded 24 Bronze Stars, 201 Commendation Medals, and 1 Air Medal. Breakdown for the three months are below:

	Bronze Star	ARCON	Air Medal
FEB	7	20	1
MAR	10	53	
APR F. C	7	128	
INCL	OFFICIALU	SE ON	- 7

EGBE-OP

12 May 1970

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

2. Personnel, Morale and Discipline:

a. Personnel:

(1) General Order No. 609 reorganized the 169th Engineer Battalion effective 25 October 1969 under TOE 5-115G, with a total authorized strength of 38 officers and 869 Enlisted men. One of the two major attached units, the 43rd Ingineer Company (DT) is organized under TOE 5-124G with a total authorized strength of 3 officers and 1 warrant officer and 109 Enlisted men. The other, the 544th Engineer Company (CS), attached 31 October 1969, per General Orders 53, Headquarters 159th Engineer Group, dated 31 October 1969, is organized under TOE 5-114D plus an augmentation of two Quarry Sections assigned per General Orders 61, Headquarters, 159th Engineer Group, dated 27 December 1969, bringing their total authorized strength to 4 officers, 2 warrant efficers, and 165 Enlisted men. The personnel strength of the 169th Engineer Battalion and attached units for the reporting period were as follows:

(a) As of 28 February 1970.

	OFF.	. wo	EM .	TOTAL
Authorized	40	10	1153	1203
Assigned	40	11	1091	1142
(b) As of	3 March 19	٣٠ .		
Authorized	40	10	1153 _	1203
Assigned	27	10	1043 .	1090
(c) As of	30 April 1	970.		
Authorized	40	10	1153	1203
Assigned	39	11	1080	1130

⁽²⁾ The following are critical over-strengths and under-strongths according to TOE.

(a) Fourteen HOS overstrengths are as follows:

MOS	DISCRIPTION	RANK	AUTHORIZED/ASSIGNED
511120	Water Supply Spec	E-3/4	4/9
62530	Engineer Equip Repair	E-4/6	21/35
INCL	FOR OFFICIAL	(3) USE ON	VLY

ECBE-OP
SUBJECT: Operational Report of 169th Engineer Battalion, AFO 96491, for Period Ending 30 April 1970.

62E20	Engineer Equip Repair	E-4/5	28/46
62G20	Quarryman	E-4/5	47/52
62 J2 0	General Constr Mach Oper	E-4	28/30
62K2O	Grader Operator	E-5	18/20
63020	Wheel Vehicle Repair	· E-5	35/5 3
63G30	General Vehicle Repair	E-5	9/11
64410	Light Vehicle Driver	E-3/4	28/39
64C40	Truckmaster	E-6/7	8/9
76A10	Supply Clerk	E-3	9/11
76Q20	Repair Parts Spec	E-4/5	11/14
76Y20	Unit Supply Spec	E-4/5	3/6
82B20	Constr Surveyor	E-4,/5	4/8

MOS	DESCRIPTION	RANK	AUTHORIZED/ASSIGNED
44020	Welder	E-4/5	13/11
51A1 0	Constr & Utility Work	E-3	25/1
51B20	Carpenter	E-4/5	72/65
51030	Structure Spec	E-4	6/3
51 D20	Mason	E-4	12/3
51G20	Soils Analyst	E-4/5	4/3
51 H40	Constr Foreman	E-6/7	32/24
62B10	Engineer Equip Apprentice	E-3	41/17
62B20	Engineer Equip depair	E-4/5	50/40

EGBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalien, APO 96491, for Period Ending 30 April 1970.

62D20	Asphalt Equip Operator	E-4/5	26/17
62F30	Crane Operator	E -4/ 5	26/24
62G30	Quarryman	E-4/6	12/2
62 G40	Quarry Foreman	F-6/7	7/3
62L20	Wheeled Tractor Operator	E-5	. 49/35
62N40	Constr Mach Supervisor	E-5/7	23/17
62N50	First Sergeant	E-8	2/0
63410	Mochanic Maint Apprentice	E-3	10/8
63040	Motor Maintain Sgt	E-6	3/2
64B20	Heavy Vehicle Driver	E-3/5	149/72
71 T 20	Maint Data Spec	E-4	8/3
82A10	Rod and & Tape man	E-3	4/0

(3) The imbalance in MOS strength is a result of the difference between the requirements listed in the TOE and the present mission of the battalion. Replacements having different MOS are given OJT in the needed MOS. For example, plumbers (51K) who are not essential to the present mission are being trained as construction foremen, truck drivers, and equipment operators.

b. Health and Sanitation:

- (1) The physical and overall health of the personnel are excellent. Good personal hygiene, cleanliness and personal protective measures are emphasized continuoually.
- (2) The mess halls and sanitation facilities are inspected regularly, and have been found to be in satisfactory condition. Deficiencies and recommendations are reported to the respective companies for corrective action.

ECBE-OP
SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

(5) Veneral disease remains a major problem within the battalion although the rate has declined slightly since January. Personal protective measures are continuously stressed to the troops. The battalion dector visits each isolated base camp once a week.

c. Morale:

- (1) With the exception of March, the battalion chapel attendance has remained above 30%. The battalion chaplain visits each base camp once a week to present character guidance classes and give religious services.
- (2) The battalion theater continues to show movies 7 nights a week. Each of the four company base camps also show movies 7 nights a week.
- (3) The isolated companies C, D and the 544th Engineer Company (CS), all operate Other Sundry Funds for the purpose of serving beer, soft drinks and snacks. Company D is in the process of applying for permission to establish an Other Sundry Fund.
- (4) Presently the PX facilities for the isolated companies include a stock of essential items provided by imprest funds from IACEX. There is no Mobile PX service to the isolated companies, but a request has been forwarded to the 20th Ingineer Brigade to provide this service. The 544th Engineer Company (CS) base camp has a gift shop.
- (5) R&R allocations for the 169th Engineer Battalion averaged 65 per month. Out-of-country R&R allocations are sufficient to accomodate all personnel that want to participate. Nost received the country of their choice. In-country R&R's are no longer available. The battalion has established an R&R program at INC, 169th Engineer Battalion on Long Binh Post. Each isolated company sends two men per week to Long Binh for R&R. The battalion R&R program is used to reward deserving enlisted men who perform their duties in an exemplary manner.
- d. <u>Discipline</u>: During the reporting period there have been 88 company grade article 15's given and 31 field grade article 15's. The majority of these article 15's were for failure to report for duty and disobedience of orders. Nine special court martials have been convened during the reporting period.
- e. <u>Casualties</u>: During the reporting period the battalion has suffered the following casualties:
 - (1) Killed: One (1), Self-inflicted wounds.
 - (2) Wounded in Action: None

EGBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

- (3) Injuries, non-hostile causes: The battalion suffered 15 personal injuries during the period. Six (6) resulted from accidental or intended weapons incidents: Three suffered injuries from vehicle accidents. The remainder were sustained while on duty status.
- (4) The battalion had 7 people evacuated from Vietnam for injuries incurred while on duty. One was evacuated for psychiatric disorders.

3. Intelligence, Counter Intelligence, and Energy Activity:

a. Intelligence and Counter Intelligence:

- (1) The battalion has performed no Combat Intelligence functions during the past reporting period other than reporting to higher headquarters all incidents involving enemy activity in the AOR that involve either units within the battalion or security forces provided for the battalion.
- (2) The battalion receives intelligence information concerning the Long Binh area and Long Khanh Province in the form of Intelligence summaries from Long Binh Post, II Field Force, and Long Khanh Province Advicory Teams. These INTSUMS are received daily.
- (3) Periodic intelligence briefings are given to officers of the battalion by the 18th ARVN Division, the districts along QL-20, and the 199th Light Infantry Brigade. By means of close personal contact with the ARVN and districts, the battalion is kept abreast of the tactical situation.
- (4) Recons in the form of sweep teams are conducted three (3) times a week in front of the Battalion's sub-sector of Long Binh Post perimeter.
- (5) Periodic sweeps have been conducted in areas on Long Binh. Post within the battalion's sub-sector which were suspect areas.

b. Enerry Activity:

- (1) There were no construction days lost due to energy activity during the period.
- (2) On 3 February 1970 at approximately 2130 hours Company C received two (2) mortar rounds just outside the perimeter of their base camp (YT 386262). There were no casualties or damage.

EGBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

- (3) On 5 March 1970 at approximately 1000 hours, three (3) NVA suspects were spotted in the vicinity of YT 604434 by Company D and ARVN personnel. Shots were fired at suspects, however they fled. No casualties or danage.
- (4) On 12 March 1970 the 544th Engineer Company (CS) found two (2) hand drawn maps on two Vietnamese employees. Both Vietnamese escaped with one map. Individuals have been identified since that time.
- (5) On 15 March 1970 Company C reported four (4) nortar rounds being received in vicinity of YT 397263. Three Vietnamese Civilians were wounded. There were no US casualties or damage.

4. Operations Plans Training:

- a. Projects completed during Reporting Period.
 - (1) Combat and Operational Support
- (a) 189-5465-0-20, Dozer Support, D Co, 169th Engineer Battalion: Constructed berms and gun pits FSD DAN, starting date 27 February 1960, completed 3 March 1970.
- (b) 189-5485-0-20, Construction of Heavy Gun Pads, FSB DAN, C Co, 169th Engineer Dattalion: Constructed two Heavy Gun Pads and underground fire direction center. Starting date 24 March 1970, Completed 31 March 1970.
- (c) 243-6213-0-20, Equipment Support, 79th Engineer Group, A Company, 169th Engineer Battalien: Provided two 25 ton trailers with 10 ton tractors. Starting date 22 March 1970. Completed 25 March 1970.
- (d) 243-6128-0-20, Equipment Support, 79th Engineer Group, A Company, 169th Engineer Battalian: Provided two 25 ton trailers with tractors, starting Cuto 3 February 1970. Completed 6 February 1970.
- (e) 275-6265-0-20, Equipment Support, 79th Engineer Group, A Company, 169th Engineer Battalion: Provided one 20 ton Crane. Starting date 24 April 1970. Completed 28 April 1970.
- (f) 289-6078-0-20, Living Fighting Bunkers, 544th Engineer Company (CS), Company C 169th Engineer Battalion: Constructed 10 ea 20'x 40' Bunkers and 1 ea 40'x40' Command Bunker. Starting date 16 December 1970. Completed 4 February 1970.

ECBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Toriod Ending 30 April 1970.

- (g) 291-6224-0-20, Equipment Support, 79th Dyrineer Croup, A Company, 169th Engineer Eattalion: Provided one 25 ton trailer with 10 ton tractor. Starting date 1 April 1970. Completed 6 April 1970.
- (h) 291-6232-0-20, Equipment Support, 79th Engineer Group, A Company, 169th Engineer Dattalion: Provided one 25 ton trailer with 10 ten tractor. Starting date 4 April 1970. Completed 6 April 1970.
 - (2) MACV Advisor Facilities: None
 - (3) Minimum Essential Requirements:
- (a) MER 399-5304-0-20, Hardstand, Open Storage Area, Mess Hall Burnout Latrine, Field Shower, 2nd Batta lion, 55th .rtillery. D Company, 169th Engineer Battalion: Starting date 9 March 1970. Completed 11 March 1970.
 - (!) Lines of Communications;
- (c) 443-8302-0-20, Nove trestle grease rack, D Company, 169th Engineer Battalion: Starting date 21 February 1970. Completed 23 February 1970.

b. Active Projects

- (1) Combat Support and Operational Support
- (a) 243-5729-3-23, Haintenance Base Comp Perimeter, Long Binh Post, NFC, 169th Engineer Battalion: Repair bunkers and install concerting wire and trip flares. Continuous.
- (b) 289-6109-0-20, Maintenance Base Comp Perimeter, 544th Engineer Company, (CS), 544th Engineer Company (CS): Repair bunkers and install concerting wire and trip flores. Continuous.
- (c) 289-611-0-20, Maintenance Base Camp Perimeter, B Company 169th Engineer Battalion: Repair bunkers and install concerting wire and trip flares. Continuous.

(9)

EUBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970

- (a) 289-6112-0-20, Maintenance Base Comp Perimeter, C Company 169th Engineer Battalion: Repair bunkers and install concertina wire and trip flares. Continuous.
- (e) 289-6113-0-20, Maintenance Base Camp Perimeter D Company, 169th Engineer Battalion: Repair bunkers and install concertina wire and trip flares. Continuous.
- (f) 789-0307-0-20, Dust Suppression system, Banana Quarry Industrial Complex, D Company 169th Engineer Battalian: Water storage tower constructed 10% complete. Starting date 1 May 1970. Expected completion date 20 May 1970.
 - (2) MACV Advisor Facilities:
- (a) 43-359-01-159 III CTZ Province Advisors, Ham Tan, Binh Tuy, A Company, 169th Engineer Battalion: Well abandoned 2 February 1970.
- (b) 812-0301-01. Water well for MACV advisors at Trang
 Bang: Project Transferred to 92nd Engineer Battalion April 1970.
 - (3) Minimum Essential Requirements: None
 - (4) Lines of Communication:
- (a) 417-5301-0-20, Water Well for 92nd Engineer Battalion: Project transferred to 92nd Engineer Battalion April 1970.
- (b) 489-5313-0-20, Operation and Maintenance of Quarry, Crusher and Asphalt Flant, 544th Engineer Company (CS): Started 10 December 1969. Expected completion 31 July 1970.
- (c) 489-0304-0-01, QL-20, FY 70, FY 70 Program, Restoration of QL-20 from Gia Kiem to II/III Corps Border, 169th Engineer Battalion: Constructing 65.4 Kilometers of MACV standard class A highway. 1,230,495 SY of clearing & grubbing, place 903,732 CY of subbase, placed 133,956 CY of base course rock, paved 33.36 Kil 1st lift and 19.96 Kil 2nd lift using 89,658 tons of asphalt concrete, placed 1257 LF 36" culverts, 746 LF 48" culvert, 568 LF 60" culvert, 490 LF 30" culvert. Project 63% complete. Started 15 September 1969, estimated completion 31 July 1970.
- (d) 489-5312-0-20, Maintenance of Base Camp for Banana Quarry Cantonment, 544th Engineer Company; 169th Engineer Battalion: Minor repair to mess hall shower, burnout latrine, electrical wiring. Continuous.

ECBE-OP 12 May 1970

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

- (e) 489-5307-0-20, Maintenance of Base Comp for B Company 169th Engineer Battalion: Minor repair to mess hall, shower, burnout latrine, electrical wiring. Continuous.
- (f) 489-5308-0-20, Maintenance of Base Camp for Company C 169th Engineer Battalion: Minor repair to ness hall, shower, burnout latrine, electrical wiring. Continuous.
- (g) 489-5309-0-20, Maintenance of Base Camp for D Company 169th Engineer Battalion: Minor repair to mess hall, shower, burnout latrine, electrical wiring. Continuous.
- (5) MACV Advisor Facilities: 43-356-01-159, III CTZ NACV District Facilities, Binh Tuy Frovince: Tanh Linh water well transferred to 92nd Engineer Battalion April 1970. Well 100% complete, waiting on pump to install in well.

(6) Base Construction:

- (a) 43-280-01-T-75 (B&D) Outdoor Recreation Facilities, Long Binh Fost, Company C, 169th Engineer Battalion: Project consists of constructing four softball fields, four tensis courts, four backetball courts, and thirty volleyball courts. Projects has not been started due to low priority.
- (b) 543-0307-0-01, Water well, 199th Light Infantry Brigade: Project transferred to 92nd Engineer Battalion April 1970.
- (c) 543-3308-0-1, Road paving, Long Binh Post, Company A, 169th Engineer Battalion: Consists of paving arterial streets on Long Binh Post, project to be started after completion QL-20.
- d. <u>Ungineer Plans</u>: During this quarter the battalion received the 100% drawings for Q L-20. Field changes to the plans continued to be effected in the northern section of QL-20 due to extensive surface and subsurface rock.
- e. Plant Operations: The crusher complex at Gia Kiem produced 117,476 cubic yards of 2" (-), 43,008 cubic yards of 3/4" (-), and 51,714 tons of asphalt.

F, Training:

(1) Formal training is conducted in the battalion on Sunday and Tuesday evenings. Mandatory DA and USARV subjects are taught. The majority of the training is carried on at the company level in commander's locatures and regular classes.

EGBE-OP

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

At battalion level, a class in Counter-Sapper techniques is conducted every two weeks by the S-2 staff and officers from the companies. The class is given to all new personnel and includes the skills that relate to perimeter guard duties such as weapons familiarization, artillery fire and adjustment, enemy sapper technique, and star-light scope operations.

- (2) Company A. Mirect Support Maintenance Section conducts GJT for ARVN mechanics. There is an average of ten ARVN mechanics per class. The classes are run on a rotation basis with each mechanic getting a chance to become familiar with both engineer and ordnance equipment. The program is working well, but a lack of TH's in Vietnamese makes the task more difficult and detracts from the over all effectiveness of the program.
- (3) The 43rd Engineer Company (DT) has employed Vietnamese drivers to supplement their effort in obtaining maximum utilization of the Grd dump trucks that were received under the MCA/LOC buy program.

5. Logistics:

a. Equipment Status: The following list reflects Mission Essential TOE/ITOE equipment shortages for this battalion, which impact upon mission accomplishment.

NOITHCLATURE	HTUA	<u>о/н</u>	SHORT
Semi-Trailers, LB 25T	24	19 (16 unserv)	21
Welding Shop, 300 AMP	7	3	4
Shop Maint, Contact Trk	6	5	1
Distributor, Bit. 800 Gal (544th Engineer Co)	2	1	1
Truck Utility, 1/4T M151A1	24	22	2
Truck, Tractor 10 Ton	27	23	4
Truck, Cargo 21 Ton	40	36	4
Lubricant Service Unit	1	0	1
Pneumatic Tool & Compressor	7	6	1

IXBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Inding 30 April 1970.

b. MCA/LOC Program:

During this reporting period the battalion, and the 43rd Engineer Company (DT) had on hand the following items of MCA/LOC equipment:

ITEM	ON HAND
Bucket, Concrete	1
Compactor, Segmented	2
Curbing Machine, Extruder	1
Distributor, Eituminous, 2500 Gal.	1
Distributor, Water, 5000 Gal.	1
Drill, Rock, Pneumatic tractor	1
excavator, Hydraulic	2
Grader Sloper	2
Paving Machine, Asphalt	2
Roller, Self-Propelled, Vibratory	2
Roller, Self-Propelled, 8-13 Ton	2
Jersey Spreader	1 .
Tamper, Ram Type	3
Sweeper, Rotary, Towed	1
Tractor, Utility W/Backhoe	2
Truck Dump, 20T, 10CY, GMC	71
Welder, 400 AMP	

c. <u>Maintenance Float Items:</u> Of the 52 assorted pieces of heavy and light equipment authorized under Maintenance Float, the Battalion has received the following:

FOR OFFICIAL (13) USE ONLY

12 May 1970

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

c. Maintenance Float Items: Of the 52 assorted pieces of heavy and light equipment authorized under Maintenance Float, the Battalion has redeived the following:

(a) D7E Tractor	2 ea.
(b) 830MB, WHLD Tractor	4 ea.
(c) 290M, WHLD Tractor	2 ea.
(d) 2 1/2 Ton Truck	4 ea.
(e) 5 Ton Tractor	1 ea.
(f) 5 Ton Dump Truck	10 ea.
(g) Scoop Loader, 2 1/2 Cu. Yd.	2 ea.

The remaining items are on requisition by Company A, Technical Supply.

d. Armunition:

(1) During this reporting period demolition supplies were in short supply. On one occasion to continue quarry operations this unit had to go to the 277th S&S Dn ASP at Tay Ninh to obtain military dynamite. A continued high usage rate of demolition supplies is expected and these items should be stocked in the Long Binh storage facilities.

e. Maintenance:

- (1) The battalion deadline rate for the past quarter averaged 12.2% for USARV critical items and 12.0% overall. The critical deadline was affected adversely by an abnormally high deadline rate at the beginning of the quarter which has been lowered to approximately 9.0% during the last several weeks of the quarter.
- (2) The extraordinary demands placed on equipment for the construction of QL-20 has increased the need for effective maintenance programs which can be supported only by having qualified personnel and the required parts on hand. The former have demonstrated outstanding spirit and performance, however, the most significant problem area continues to be the needless time lost awaiting repair parts.

EGBE-OP . 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, AFO 96491, for Period Ending 30 April 1970.

(3) The anticipated rapid influx of repair parts for the rock crushers and asphalt plant at Banana Quarry, under projects EiG and HE respectively, has not been realized. The current percentages of line items filled are 35% for HG and 11% for HE.

f. Construction Materials:

- (1) No project was stopped during this reporting period for lack of construction materials.
- ' (2) Some construction materials remained in short supply, mainly lumber, and certain sizes of culvert.
- (3) An additional problem encountered during this period was the change over between FASE and the Army Depot in the responsibility for stockage of certain construction materials. This problem was short-lived and was overcome when requisitioning procedures were established.

E. Mineral Products:

- (1) OICC contracts for RMK-BRJ supplied asphalt and base rock were not utilized for this quarter. However, base rock will be picked up daily beginning in May in order to utilize truck haul and to make up the difference in rock produced at Banana Quarry and the Rock needed to complete the base course on QL-20 by 30 June.
- h. <u>Contract Resources</u>: No civilian trucks have been provided to the Battalion this quarter. The haul requirement was met with TOE and NCA/LOC equipment.
- i. RVMAF Improvement: During the reporting period the 169th Engineer Battalion continued its participation in the RVMAF improvement and modernization program by transferring one semi-trailer, 25 ton, to the Republic of Vietnam.
- 6. Force Development: The 169th Engineer Battalion and subordinate Company AOR's remained unchanged over the reporting period. The 544th Engineer Company (CS) continued to operate the industrial site at Gia Kiem, consisting of a quarry, crushers and asphalt plant.
- 7. Command Management: Continued emphasis has been placed upon the accuracy in preparation of the project data requests. The increased emphasis has resulted in improved management of the construction projects.

EGBE-OP 12 Nay 1970

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

- 8. <u>Inspector General Activities</u>: The battalion acting Inspector General investigated 15 complaints during this reporting period. All complaints were local and were resolved at the unit level.
- 9. PIO: During the past reporting period the battalion submitted 24 feature stories and 345 home town news releases. 12 feature stories were published in journals circulated within VN and one in journals with circulation outside VN.

10. Civic Action:

a. Social Wolfare:

- (1) The 169th Engineer Battalion spent a total of 20 man days on Civic Action projects during the past quarter.
- (2) Assistance was given to one (1) orphanage, one (1) church organization, one (1) MACV subsector, and villages around the company base camps along QL-20.

b. Specific Projects:

- (1) The chaplain contributed thirty (30) gallons of canned food to the Gia Kien Orphanage on 11 March 1970.
- (2) Contributions of 52% of food and 100% clothing were distributed by the battalion Chaplain on 28 April 1970 among various orphanages, church groups and schools.

SECTION 2: Significant Lesson Learned:

- 1. Personnel: None
- 2. Intelligence: None

3. Coerations:

- a. By pass Utilization:
- (1) Observation: Continuous traffic over subbase and base course rock damage the finished grade of these courses. Traffic also makes construction of the latter extremely difficult. A bypass road aids in speed of construction by eliminating congestion caused by traffic in the construction area.

(16)

EGBE-OP '12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970.

- (2) Evaluation: An effective means of controlling traffic during construction and limiting traffic on the subbase and base course must be instituted.
- (3) Recommendation: Where possible, a two lane bypass road should be established. This road should, as a minimum requirement, be able to handle the traffic even when reasonably wet so that traffic vill not attempt to use the newly constructed roadways. The actual lengths of bypass should be held to a minimum with numerous entrances and exits able to be constructed as rock and paving operations progress.

b. 5000 Gallon Water Distributors:

- (1) Observation: The TOE 1000 gallon water distributors cannot adequately provide enough water for a large road construction project which requires compaction of subbase unterial and base course rock.
- (2) Evaluation: During the dry season increased water hauling capabilities are required in the construction company. On an average day it is necessary to haul 60,000 to 80,000 gallons of water per company on a large road construction project.
- (3) Recommendation: The addition of 5000 gallon water tankers would greatly increase the construction units water haul capability. The number of tankers needed would depend on the distance of the constructing unit from the water source. A guideline on the number of tankers required would be two for every 3 kilometers distance from the construction site to the water source.

o. Water pumps:

- (1) Observation: The TOE 100GPM pumps in the construction company do not have an adequate capacity to provide quick cycle time for water distributors between the read construction site and the water source.
- (2) Evaluation: It takes a 100GPM pump approximately 1 hour to load a 5000 gallon water tanker. The cycle time caused by this loading time makes water haul the critical element in subbase and base course compaction. A loading time of 10-20 minutes is required.
- (3) Recommendation: The addition of two 500 GFN or equivalent capacity pumps to the construction company TOE would greatly increase the water haul capability of the construction company.

EGBE-OP 12 Hay 1970 ·

Operational Report of 169th Engineer Battalion, APO 96491, for SUBJECT: Period Ending 30 April 1970.

d. 40 Foot Roadways:

- (1) Observation: The congestion and narrow width in the Vietnamese Villages make construction of highway drainage in the village extremely difficult.
- (2) Evaluation: The narrow width of Vietnamese villages make construction of drainage ditches impossible without demolishing a part of the village. An effective means of draining the roadway is necessary to prevent flooding of houses and businesses within the village.
- (3) Recommendation: By paving the roadway to a width of 40 feet and then providing a shoulder roll or curb, the roadway can be drained to whorever drainage can be previded. This method of road construction eliminates flooding in areas where no drainage can be provided. In addition, the extra width of pavement in the village provides a good shoulder surface for parking of vehicles.

e. Finish Grade Construction:

- (1) Observation: Traffic on finished subgrade tends to destroy the finished surface of the subbase.
- (2) Evaluation: Depending on local conditions, subgrade construction methods will vary widely. Of prime importance is the maintenance of adequate compaction and protection of the subbase from degradation caused by traffic.
- (3) Recommendation: When the water capabilities of the constructing unit are adequate to provide water to both the finished grade and work site, hauling of subbase fill over the finished grade can be beneficial as each load will aid in compacting the subgrade. Extreme care must be taken, however, to insure the proper moisture content is maintained and vehicle speed is reduced to prevent damage to the surface. Where water capabilities are not adequate it is best to work towards the borrow area, thereby keeping all traffic off the completed subgrade. It is also advisable to surface treat the finished surface with MC-70 to prevent damage by any vehicles which may wander on the completed surface or from rain damage.

f. Night Construction Operations:

(1) Observation: When constructing roads through villages and the construction of a bypass is not feasible, the volume of traffic and maintenance of traffic central make operations extremely difficult.

EBBE-OP
SUBJECT: Operational Report of 169th Engineer Battalion, APO 964)1, for Period Ending 30 April 1970.

- (2) Evaluation: The construction of roads through villages where a bypass road is not feasible is a very time consuming process because of the lost construction time due to traffic congestion. This unit has muccessfully constructed or is constructing 13 KM of class A road on second shift night operations.
- (3) Recommendation: Night construction operations in villages greatly increase the units capabilities. Traffic at night is virtually non-existent, and the road can be completely closed if necessary. Security requirements in the villages can be minimal due to the normal presence of regional forces in the village area. Night operations must be carefully planned to ensure that all materials are on site so that work can proceed.

g. Culvert Headwalls:

- (1) Observation: Sudden rainstorms cause extensive erosion at the urstream end of culverts which have not had the headwalls constructed.
- (2) Evaluation: When there are a large number of headwalls to be constructed, speed of construction is of utmost importance. Construction effort and material available normally require some phase of the operation to slip to a later date.
- (3) Recommendation: By concentrating the construction effort on all upstream headwalls first, they can be constructed in a minimum time, thereby reducing the damage to the culverts caused by runoff from heavy rains.

h. Base Rock Compaction:

- (1) Observation: Compaction of base course rock with a 10 ton steel wheel roller is a very slow process. Also, the results obtained are unsatisfactory when poorly graded base course material is to be compacted.
- (?) Evaluation: In a road construction project of the proportion in which this unit is engaged, a faster, more efficient compaction method must be used to compact the base course properly.
- (3) Recommendation: A vibratory roller is ideal for compacting base course. This unit found the vibratory roller to be as effective as three 10 ton steel wheel rollers. The effect of replacing three rollers with one reduces the maintenance and logistical problems associated with this equipment and reduces the number of personnel required in the rock compaction process.

EGBE-OP 12 New 1970 SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for

Period Ending 30 April 1970.

i. Attached Horizontal Platoon.

(1) Observation:

- a. The major advantage of an attached horizontal platoon to a construction company is that it provides twice the horizontal construction capability without the costs associated with setting up a completely separate company.
- b. The disadtantages of an additional horizontal platoon is that it requires extra surveyors to keep pace with the added horizontal capability, and it places twice the workload on the engineer maintenance section of the company.
- c. The addition of an attached platoon will not double the work output because of reduced maintenance supervision and support.
- (2) Evaluation: The goal of doubling the horizontal output of a company by attaching an additional horizontal platoon can only be approached if adequate maintenance and surveyor support can be given to the attached platoon.
- (3) Recommendation: When a horizontal platoon is attached to a construction company, the following type of personnel package might also be attached to the company: 5 surveyors (1 party chief), 9 engineer mechanics and 1 equipment reports clerk.

j. Surveyors:

- (1) Observation: One survey crew of five men can effectively support one herizontal platoon and one vertical platoon placing culverts on a highway construction project.
- (2) Evaluation: On a highest construction project there are many work areas progressing concurrently which require constant survey support-checking the level circuit and verifying bench marks, center line location, placement of slope and grade stakes, locating and insuring proper grade and slopes for culverts, placement of a stringline on the road center line in the paving operation, and replacing slope or grade stakes which may be removed or damaged during construction.
- (3) Recommendation: When a construction battalion is fully committed to road construction, the battalion survey section should be augmented to allow for a five man survey crew for each horizontal platoon.

FOR OFFICIAL (20) USE ONLY

MCBE-OP
SUBJECT: Operational Report of 169th Engineer Battalion, APC 96491, for Period Ending 30 April 1970.

k. Earth Commetion:

- (1) Observation: The TOE earth compaction equipment of the construction company-sheepfoot rollers and 35-50 ton rollers-is inefficient when the company is involved in road construction operations where there are comparatively large fills and efficient houl distances for the 18 cubic yard houling units.
- (2) Evaluation: The towed TOE compaction equipment of the construction company has to have a prime mover, either a dozer or a wheeled tractor, in order to be utilized. With the normal deadline rate of a horizontal platoon, this use of a prime mover am cost the platoon the use of a pusher for the 18 oubic yard scraper or a prime mover for one of the four acrapers. In addition, the TOE compaction equipment cannot adequately compact a large fill area where a short houl is involved, thus taking compaction the controlling factor in work progress. Two units of this battalion employed Myster segmented compactors (Model C-530A) in their road construction projects. These self-promelled, 27 ton rollers could adequately compact all earth houled by one horizontal plateon and in one instance kept up with earth compaction on a large fill with seven 18 cubic yard houling units having a five minute cycle time.
- (3) Recommendation: Self-propelled compaction is ideal for the construction company since it does not tie up a prime mover and can provide greater compactive effort in less time. Self-propelled equipment also does not require turn around space and can operate in a more confined area than can the TOE equipment.

1. Electricians for a Construction Support Company:

- (1) Observation: The construction Support Company which ran this battalion's industrial site during this reporting period had no electricians authorized under its TOE. This industrial site employed two 500 KM generators to run the industrial complex; the electrical system ran electric motors powering at a minimum, 10 conveyors, ran a system of lights which were used in night operations, and provided all electrical power for the 150TPH asphalt plant.
- (2) Evaluation: The extensive electrical system at the industrial complex and the problems associated with it caused the battalion to assign two qualified electricans for full time duty at the quarry.
- (3) Recommendation: Two electricians should be added to the TOE of a construction support company to aid the company in accomplishing its mission.

FOR OFFICIAL (21) USE ONLY

EGBE-OP 12 May 1970 SUBJECT: Operational Report of 169th Engineer Battalion, AFO 96491, for Period Ending 30 April 1970.

m. Rock Stockpiles:

- (1) Observation: If base course rock is stockpiled in large quantities, the larger rock and the fines will become segregated if insufficient attention is placed on the handling of the rock in the stockpile.
- (2) Evaluation: This unit utilized many rock stockpiles in the construction of QL-20. It was found that if a dozer worked a stockpile and tried to move the rock from one location to another, the fines and the larger rock become segregated. Also in the loading operation, the front loader operator had to be instructed to insure that he was not just loading one portion of the rock.
- (3) Recommendation: When utilizing base course stockpiles, insure that sufficient attention is devoted to the handling operations so that the rock does not become segregated.
 - n. Shoulder Placement on Super Elevated Curves:
- (1) Observation: When the asphaltic concrete pavement is placed around super elevated curves on a highway, a natural dam is formed on the edge of the super elevated curve.
- (2) Evaluation: When it rains, the high outside shoulder area of a super elevated curve forms a natural dam for the water runoff. The water will work its way into the aspiralt and may eventually cause an asphalt failure.
- (3) Recommendation: When asphalt is placed on a super elevated curve, immediate attention should be given to constructing the shoulders on the outside edge of the curve to eliminate water from standing on the edge in case of rain.

o. Slope Construction:

(1) Observation: It is difficult to construct and compact the slopes of a road at the proper grade in a small fill area.

EGBE-OP 12 May 1970 Operational Report of 169th Engineer Battalion, APO 96491, for SUBJECT: Period Ending 30 April 1970.

- (2) Evaluation: When constructing roads and a fill of less than 10 feet is involved, it is difficult to build the short slopes at the proper grade and compact their properly concurrently. Construction proceeds faster if the road is built approximately two feet wider on each side and the loose earth shaved off the slopes after construction. This method of construction allows the compaction of slopes to be accomplised concurrently with readway conpaction and insures the proper width of readway.
- (3) Recommendation: In roadway construction of fills less than 10 feet, the readway should be constructed approximately 2 feet wider on each side of the road to allow the clope to be cut at the proper grade and allow slope compaction to be accomplished concurrently with roadway conpaction.
- 4. Training: None
- 5. Logistics: None
- 6. Communications: None

DISTRIBUTION:

- 2 USARPAC, ATTH: GLOF-DT
- 3 CG, USARV, ATHN: AVHGC (SDT)
 4 CG, 20th Engr Ddel; ATTN: AVHI -OS
- 15 CO, 159th Engr Group, ATTN: EGB-OP 96491 25 CO, 169th Engr Bn ATTN: EGBE-OP APO 96491

NICK J. ALTORE

LTC, CE Commanding

EGB-CO (12 May 70) 1st Ind SUBJECT: Operational Report-Lessons Learned, 169th Engineer Battalion (Construction), Period Ending 30 April 1970, RCS CSFOR-65(R2)

DA, HQ, 159th Engineer Group, APO 96491 21 May 1970

- TO: Commanding Officer, 20th Engineer Brigade, ATTN: AVBI-OS, APO 96491
- 1. Submitted in accordance with USARV Regulation 525-15 dated 13 April 1968.
- 2. Comments are made on the following paragraphs:
- a. Section I, paragraph 4f(2): A letter has been submitted to 20th Engineer Brigade requesting assistance in obtaining TM's written in Vietnamese.
- b. Section I, paragraph 5a: These shortages have been reported in the Commander's Critical Items List, and valid requisitions for all equipment have been verified.
- c. Section II, paragraph 3b, c, i, j, l: The primary mission of the 169th Engineer Battalion, LOC construction effort. Because of their specialized need, the LOC program has been implemented with MCA-LOC equipment and civilian contractor consulting personnel to assist in the fields of electrical work, horizontal and vertical construction, and design. Efforts made to provide the construction unit with additional men and equipment have resulted in surveying assistance from the 66 TOPO and, as an example, mounting 5,000 gallon fuel tanks on a lowbed trailer and using it as a water trailer.

COL, CE

Commanding

CF:

CO, 169th Engr Bn

24

AVBI-OS (12 May 70) 2nd Ind

SUBJECT: Operational Report - Lessons Learned of 169th Engineer Battalion (Construction) for Period Ending 30 April 1970, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491 1 4 JUN 1970

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

- 1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1968.
- 2. This headquarters concurs with the submitted report with the comments contained in the 1st indorsement.

FOR THE COMMANDER:

DIMILSAND

D. L. MC BRIDE

1LT, CE

Assistant Adjutant

Copies Furnished: CO, 159th Engr Go CO, 169th Engr B:

AVHGC-DST (12 May 70) 3d Ind

SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970

Headquarters, United States Army Vietnam, APO San Francisco 96375 4 JUL 1970

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-DT, APC 96558

1. This Headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1970 from Headquarters, 169th Engineer Battalion and comments of indorsing headquarters.

2. Comments follow:

- a. Reference item concerning "Maintenance", page 14, paragraph 5c(2): concur. Repair parts support for low density engineer equipment has in many cases not been able to adequately fill demands, and often much valuable time is lost awaiting repair parts for deadlined equipment. All available means of expediting procurement and shipping of the most critically needed repair parts have been employed. The Red Ball LOC Program, specifically designed to support LOC essential equipment, has been implemented to reduce NORS rates of critical engineer construction equipment. Unit has been so advised.
- b. Reference item concerning "5,000 Gallon Water Distributor", page 17, paragraph 3b: nonconcur. MCA-LOC equipment has already been purchased to augment the TOE capability of construction battalions. Secondly, scored out field tankers drawn from PDO can be utilized to augment a construction unit's water carrying capability during critical periods. Although adequate water carrying assets are critical, short term problem caused by unique construction requirements does not justify a TOE change. No action by USARPAC or DA is recommended.
- c. Reference item concerning "Water Pumps", page 17, paragraph 3c: non-concur. The Engineer Construction Company, TOE 5-118G, is not authorized the 5000 gallon water tanker either by TOE or MTOE. Unless authorization for the 5000 gallon water tanker is obtained, authority should not be furnished for two (2) 600 GPM pumps per engineer construction company. The tanks now in use were obtained from either the MCA purchase of LOC commerical equipment or from PDO'ed equipment and mounted on a 25 ton semitrailer. If the 5000 gallon water tanker or similar item becomes a TOE item of equipment in an appropriate engineer type unit/organization, a compatible pump should be included. Unit has been so advised.

AVHGC-DST (12 May 70) 3d Ind SUBJECT: Operational Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1970

- d. Reference item concerning "Attached Horizontal Platoon", page 20, paragraph 3i: concur. A construction battalion is set up to sustain horizontal and vertical construction with survey and maintenance support at battalion level. Redistribution (attachment/detachment) of horizontal assets does not interrupt the balance of what the battalion surveyors and maintenance personnel can support. However, this redistribution does interrupt the normal span of control over these units and makes effective management more difficult. When a construction battalion is fully committed to large scale construction, survey support can be obtained from Group or Command assets upon request. No action by USARPAC or DA is recommended.
- e. Reference item concerning "Electricians for a Construction Support Co", page 21, paragraph 31: concur. The addition of two electricians to a construction support company would help eliminate serious electrical problems which exist at industrial sites. Construction support companies are not called upon to perform the primary mission of augmentation but are required to operate entire industrial complexes on their own. With the wide spread use of electrically operated crushers the problem is acute. An electrical services contractor currently provides support to the construction battalion. While this support is excellent in setting up a new site it is not appropriate for use in day to day maintenance. Recommend DA consider the recommendation in paragraph 31(3) in the next TOE evaluation.

FOR THE COMMANDER:

Cy furn: 20th Engr Bde 169th Engr Bn CPT, AGC Assistant Adjutant General

GPOP-DT (12 May 70) 4th Ind SUBJECT: Operational Report of NQ, 169th Engineer Battalion for Period Ending 30 April 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558

23 JUL 70

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed with the following comment: Reference "Electricians for a construction support company," page 21, paragraph 31, ORLL, and paragraph 2e, 3d Indorsement: Nonconcur. TOE generators are normally designed for loadings of TOE equipment and not to provide power for industrial sites. Following this concept, the value of adding electricians is questionable. If the construction support company is required to run an industrial site which might utilize two 500kw generators, as noted in the ORLL, provision of the electricians by MTOE would be appropriate.

FOR THE COMMANDER IN CHIEF:

L.M. OZ CPT, AGC Asst AG

Cy furn: CG USARV

DOCUMENT CONTROL DATA - R & D (Security classification of fills, body of abstract and indexing annotation must be entered when the overall report is classified)			
1. ORIGINATING ACTIVITY (Corporate author)	Za. REPORT SECURITY CLASSIFICATION		
HQ DA, OACSFOR, Washington, D.C. 20310	FOR OFFICIAL USE ONLY		
no bit, onoblok, habitington, brot 20020	26, GROUP		
3. REPORT TITLE			
h .			
Operational Report - Lessons Learned, HQ,	169th Engineer Battalion		
4. DESCRIPTIVE NOTER (Type of report and inclusive dates) Experiences of unit engaged in counterins	urgancy aparations 1 Feb to 30 Apr 70.		
6. AUTHOR(5) (First name, middle initial, last name)	digency operations i red to 30 upr /or		
CO, 169th Engineer Battalion			
·			
S. REPORT DATE	78, TOTAL NO. OF PAGES 7b, NO. OF REFS		
12 May 1970	31		
Sa. CONTRACT OR GRANT NO.	SE, ORIGINATOR'S REPORT NUMBER(S)		
b, PROJECT NO.	702091		
c. N/A	9b. OTHER REPORT NO(5) (Any other numbers that may be sealoned		
	this repett)		
d.			
10. DISTRIBUTION STATEMENT	· · · · · · · · · · · · · · · · · · ·		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY		
N/A	DA CACCEON II I		
N/A	DA, OACSFOR, Washington, D.C. 20310		
13. ABSTRACT			
	İ		
	·		
·			
·			
	Į.		
	i		
	i		
. 29			
	أو والمواجعة والمواجعة والمواجعة والمواجعة والمواجعة والمحاجمة والمحاجمة والمحاجمة والمحاجمة والمحاجمة والمحاجم		

DD 1984...1473

UNCLASSIFIED
Security Classification